

NTSB Identification: CEN14FA224

14 CFR Part 91: General Aviation

Accident occurred Sunday, April 27, 2014 in Highmore, SD

Probable Cause Approval Date: 04/27/2015

Aircraft: PIPER PA 32R-300, registration: N8700E

Injuries: 4 Fatal.

NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work without any travel, and used data obtained from various sources to prepare this aircraft accident report.

During a dark night cross-country flight, the instrument-rated pilot was approaching the intended airport for landing when the airplane collided with the blades of a wind turbine tower. The weather had started to deteriorate and precipitation echoes were observed on radar. Witnesses in the area described low clouds, windy conditions, and precipitation. In addition, weather briefing records and statements made to a witness indicate that the pilot was aware of the current and forecast weather conditions for the route of flight. Investigators were unable to determine why the airplane was operating at a low altitude; however, the pilot was likely attempting to remain clear of the clouds even though both the pilot and the airplane were capable of flying in instrument meteorological conditions. An examination of the airplane, systems, and engine revealed no anomalies that would have precluded normal operation. Toxicology findings revealed a small amount of ethanol in the pilot's blood, which was unlikely due to ingestion since no ethanol was found in liver or muscle tissue.

The investigation revealed that the wind turbine farm was not marked on either sectional chart covering the accident location; however, the pilot was familiar with the area and with the wind turbine farm. Investigators were not able to determine what the pilot was using for navigation just before the accident. The light on the wind turbine tower that was struck was not operational at the time of the accident, and the outage was not documented in a notice to airmen. The wind turbine that was struck was the 5th tower in a string of towers oriented east to west, then the string continued south and southwest with an additional 13 towers. If the pilot observed the lights from the surrounding wind turbines, it is possible that he perceived a break in the light string between the wind turbines as an obstacle-free zone.

The National Transportation Safety Board determines the probable cause(s) of this accident as follows:

- The pilot's decision to continue the flight into known deteriorating weather conditions at a low altitude and his subsequent failure to remain clear of an unlit wind turbine. Contributing to the accident was the inoperative obstruction light on the wind turbine, which prevented the pilot from visually identifying the wind turbine.